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Oklahoma Department of Agriculture, Food, and Forestry



Don Parrish
Director

MEMORANDUM

Date: May 18, 2005
To: Registered Poultry Feeding Operation
From: D. J. Parrish *[Signature]*
RE: Follow-up to May 3, 2005 Meeting

Please find enclosed a response to the most significant questions raised at the May 3, 2005 Kansas, OK, meeting regarding soil and poultry waste sampling at selected poultry feeding operations in the Illinois River Watershed. As you will see in the enclosed response, ODAFF is willing to work cooperatively with you in conducting this sampling, and I believe that the enclosure will resolve any questions you have about the process.

ODAFF poultry inspectors John Littlefield and David Berry will be in contact with you this week to set up appointments for collecting soil and poultry waste samples beginning the week of May 23rd.

Thank you for your cooperation.

DAW/20050523

EXHIBIT

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**CONSIDERATIONS REQUESTED
BY POULTRY OPERATIONS AT THE
MAY 3, 2005 MEETING AT
KANSAS, OKLAHOMA**

Question A- Soil samples should be taken from 0" to 6" and not from 0" to 2" and 2" to 4" and 4" to 6".

Answer A- OK. A 0" to 6" soil core sample will be collected and not three soil core samples from each specified area.

Question B- Composite soil samples should be performed at the site and not at the laboratory.

Answer B- Option.....an individual can be present at the Colorado Lab to observe when the composite soil sampling protocols are completed. Compositing at the laboratory is the best method for ensuring a representative sample.

Question C- Reduce the number of parameters/constituents being tested for (both for soil and waste). Test for pH, Nitrogen, Phosphorus, Potassium, and moisture, as specified in the Oklahoma Registered Poultry Feeding Operations Act 2 O. S. 10-9.1, Section 7.E.

Answer C- ODAPP will sample for the parameters listed in Answer B.

Question D- Allow the registered poultry feeding operation to split samples.

Answer D- Yes. The poultry operations can send one representative to the Colorado Lab to observe the composite sampling activities and split samples will be given to that person.

Question E- Furnish to the poultry operations the list of constituents being tested for and the lab methods being used for each parameter being analyzed.

Answer E- Yes. A different lab methodology may be utilized if determined to be necessary by ODAPP.

Analytical Protocols

1. Soil samples will be analyzed for one of two sets of parameters (short list or long list). Table 1 provides the parameters and analytical methods for the short list and Table 2 provides the parameters and analytical methods for the long list.
2. Litter samples will be analyzed for Table 2 parameters.

Table 1: Short List Parameters - Soil

Parameter	Method
Moisture content (%)	Gravimetric (105C)
Organic matter	Walkley-Black (Modified)
Soil pH	Water 1:1
Soil Conductivity	Water 1:2
Total Nitrogen	Kjeldahl modified

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Total Aluminum (Al)	EPA SW-3050/6010
Total Phosphorous (P)	EPA SW-3050/6010
Total Arsenic (As)	EPA SW-3050/6010
Total Copper (Cu)	EPA SW-3050/6010
Total Zinc (Zn)	EPA SW-3050/6010

Table 2: Long List Parameters - Manure and Soil

Parameter	Method
Moisture content (%)	Gravimetric (10SC)
Organic matter	Walkley-Black (Modified)
Texture (% sand, silt and clay)	Hydrometer ASTM-D422
Soil pH	Water 1:1
Soil Conductivity	Water 1:2
Total Phosphorous (P)	EPA SW-3050/6010
Mehlich-III Phosphorous (Mehlich-III F)	Mehlich III (ICP)
Soluble Phosphorus	Water 1:10, Bull 396, p 17
Soluble nitrate	Water 1:10
Total Nitrogen	Kjeldahl modified
Soluble ammonium	Water 1:10
Soluble sulfate	Water 1:10
Soluble chloride	Water 1:10
TAL Metals	EPA SW-3050/6010
Total Molybdenum (Mo)	EPA SW-3050/6010
Bacteria:	
Total coliform	SM-9221B
Enterococcus	SM-9221F
Fecal coliform	SM-9230B
e-coli	SM-9221F
staphylococcus	MPN
campylobacter	MPN
salmonella	MPN
17 β -estradiol, estrone, estriol	LC-MS-MS

Question E- When three fields at one operation are being soil sampled, require that samples should be collected as follows: the field that had poultry waste most recently applied, a field that had waste applied to at least one year prior to sampling, and a field that had waste applied to at least two years prior to sampling.

Answer E- ODAFF intends to sample fields on which land application has occurred recently and fields that have had no land application.

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